#### **REMARKS**

# A. <u>Overview</u>

In the Non-Final Office Action mailed on August 11, 2003 (Paper No. 10), the Examiner: allowed claims 27-35; indicated that claims 15 and 16 would be allowable if rewritten in independent form; rejected claims 1-8, 13, 14, 18-20, 25, and 26 under 35 U.S.C. § 102(e) over U.S. Patent Application Publication No. US-2001/0049623 by Aggarwal et al. ("Aggarwal"); and rejected claims 9-12 and 17 under 35 U.S.C. § 103(a) over Aggarwal and U.S. Patent Application Publication No. 2002/0154157 by Sherr et al. ("Sherr"). By this response, applicant amends claims 5, 13, and 25, and amends the specification to correct a typographical error. Claims 1-35 are presently pending, of which claims 21-24 are withdrawn in accordance with applicant's earlier election. For the reasons discussed in detail below, applicant submits that all of the elected claims are now in condition for allowance.

Applicant is grateful to the Examiner for his indication that claims 15, 16, and 27-35 are allowable, and for the consideration shown by the Examiner during the telephone interview conducted on November 7, 2003, during which the participants discussed distinctions between the rejected claims and the cited prior art references.

#### Applicant's Techniques

Applicant's techniques are directed to generating item recommendations, such as product recommendations. In some cases, applicant's techniques receive a string of keywords or a query of another type generated by a user, and executes that query against the text associated with each of a number of different items, which may include such information as item descriptions, artist or publisher name, musical track listings, etc. Some or all of the items that match this query are submitted as recommendation seeds to a recommendation engine, which uses them to generate a list of recommended items that are similar to the recommendation seeds. In some cases, only the most relevant items from the search result are submitted as recommendation seeds.

In other cases, applicant's techniques generate item recommendations by submitting to a recommendation engine a set of seed items explicitly selected as seed items by the user. In some cases, applicant's techniques display a list of items, and receive user input selecting some of the displayed items as recommendation seeds.

## Prior Art—Aggarwal

Aggarwal describes an approach to generating item recommendations using clusters of customers, called "peer groups." (Abstract: 7-11) For a particular customer, Aggarwal creates a customer characterization of the customer's behavior by combining information about the products browsed or purchased by the customer during the customer's current session with information about products browsed or purchased by the customer during earlier sessions. In particular, the customer characterization created by Aggarwal is a collection of words appearing in text descriptions of products browsed or purchased. (Paragraphs 61 and 40) Aggarwal compares the customer characterization to similar characterizations of the customers in each peer group cluster to identify the peer group cluster that seems most similar to the customer. (Paragraph 62) The identified peer group cluster is used to generate recommendations for the customer by identifying the products most frequently purchased by the members of the peer group cluster.

## Prior Art Rejections

The Examiner rejected claims 1-13 over Aggarwal, either alone or in combination with Sherr. Each of these claims is directed to receiving an input string directly specified by a user, performing a word search against that input string, and using items among those in a word search result as seeds to generate a list of recommended items. The Examiner indicated that this entire process is disclosed identically by Aggarwal. This conclusion is mistaken, as several of the elements recited in each of these claims are absent from Aggarwal. First, Aggarwal does not disclose receiving a search string directly specified by a user. The Examiner indicated that Aggarwal discloses this claim element by its discussion of accessing the textual product characterizations for products browsed or purchased by the customer. The words making up these textual



product characterizations, however, are not directly specified by the user as recited—rather, they are specified by someone else who wrote the textual product descriptions from which the product characterizations are derived, and were automatically included in the customer's customer characterization based upon the customer's browsing or purchasing behavior.

Second, Aggarwal does not disclose conducting a word search based upon such an input string, as recited by these claims. Third, Aggarwal does not disclose submitting items—identified by a word search or otherwise—as recommendation seeds. The Examiner indicated that Aggarwal discloses this item by its discussion of comparing the customer's customer characterization, obtained by combining product characterizations containing text from descriptions for various products, to similar customer characterizations generated for peer group clusters. Applicant submits that comparing such characterizations—which are simply not items, but rather sets of words appearing in product descriptions—does not constitute submitting items as recommendation seeds as recited by these claims. Accordingly, these claims are patentable over the cited references.

The Examiner rejected claims 14-20, 25, and 26 over Aggarwal, either alone or in combination with Sherr. These claims are directed to generating recommendations using a user-specified recommendation seed base comprised of seed items, and using the seed base to produce a list of recommended items. Nowhere does Aggarwal disclose receiving such a seed base, or using it to produce a list of recommended items. It is not clear how Figure 1 or paragraph 43 of Aggarwal, identified by the Examiner, could possibly relate to these claim elements. As a result, these claims are all patentable over the cited references.

The Examiner rejected claims 9-12 and 17 under 35 U.S.C. § 103 over Aggarwal and Sherr. These claims each recite sending an email to a user containing a list of items recommended for the user. The Examiner indicated that Sherr discloses sending such an email in paragraph 74. This paragraph of Sherr does not disclose sending such an email. Rather, it merely discusses using user responses to inquiries or a

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questionnaire that are <u>received from the user</u> via electronic mail to generate recommendations for the user.

Further, Sherr was filed on April 6, 2001, after the present application was filed on August 25, 2000. Accordingly, Sherr only constitutes prior art under 35 U.S.C. § 102(e) against the present application to the extent that disclosures of Sherr relied upon by the Examiner are supported by U.S. Patent Application No. 60/195,870, which was filed before the present application on April 7, 2000 and to which Sherr claims priority. Applicant is unable to locate any discussion in this priority application of email used in conjunction with generated recommendations. For each of these reasons, these claims are patentable over the cited references.

#### B. <u>Conclusion</u>

In view of the foregoing, applicant submits that all of the elected claims are allowable. Accordingly, a prompt Notice of Allowance is respectfully requested. If the Examiner has any questions, or believes a telephone conference would expedite examination of this application, he is encouraged to call the undersigned at (206) 359-6373.

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Steven D. Lawrenz Registration No. 37,376

Respectfully submitted;

Perkins Coie LLF

Correspondence Address: Customer No. 25096 Perkins Coie LLP P.O. Box 1247 Seattle, Washington 98111-1247 (206) 583-8888